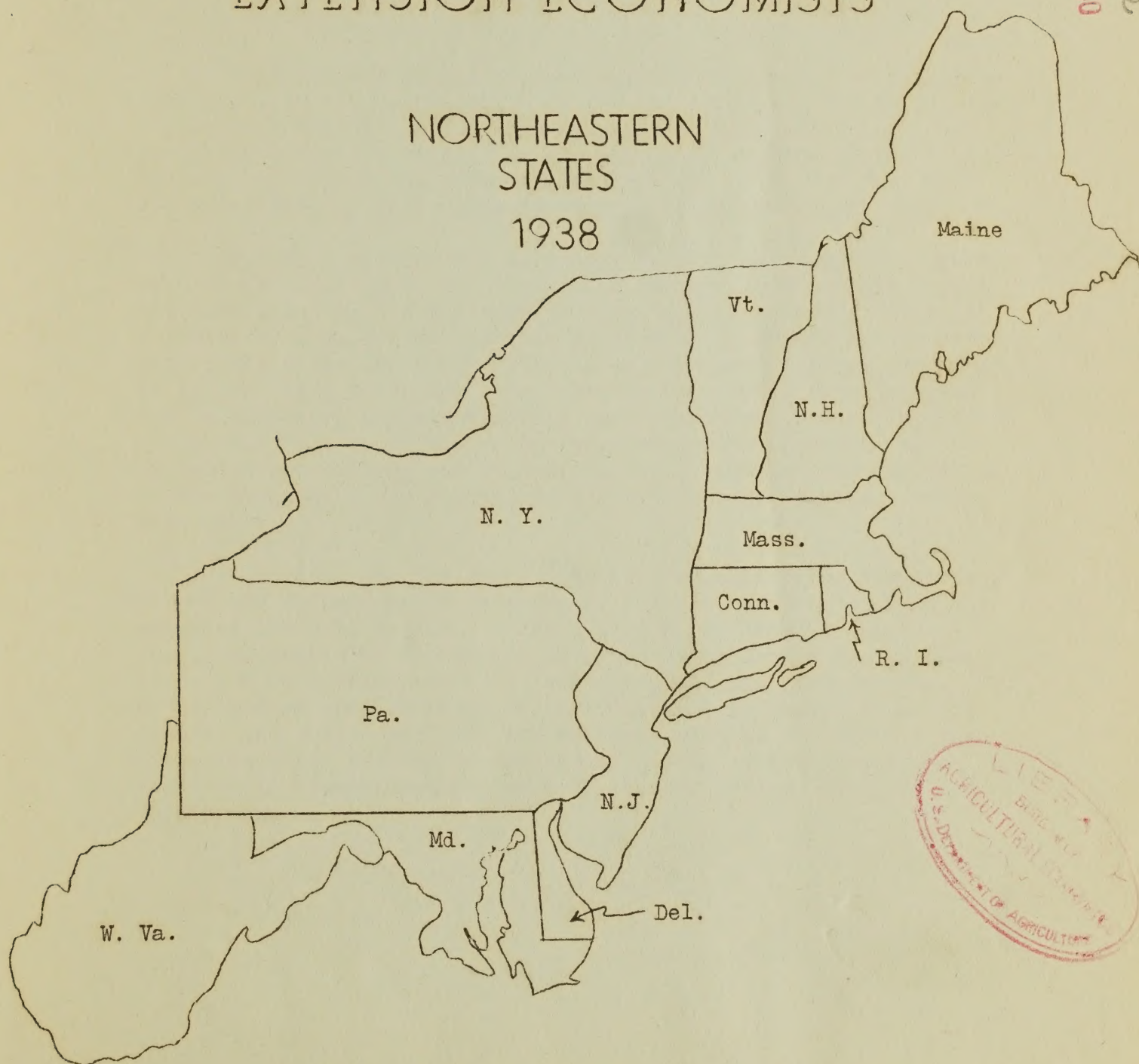


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FARM MANAGEMENT
ACTIVITIES
OF
EXTENSION ECONOMISTS

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NORTHEASTERN
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1938



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FOREWORD

(This summary of the farm-management activities of extension economists in the Northeastern States has been prepared to provide a record of the work being done and also to give something of a perspective for the benefit of all extension workers in the field. The various activities reported are for 1938 only, but they are representative of what might be carried on in any recent year.)

First an attempt has been made to make an analysis of farm-management problems in the region and to discuss the changes that are developing in the approach to farm-management work. This is followed by a report on specific activities in regard to how farm-management facts are being obtained and prepared for use, and then as to how these facts are being used in developing farm programs and in assisting individuals with their decisions. This report covers only the contribution to farm-management work made by extension economists; but it does indicate also how the activities of the economists are related to projects conducted cooperatively with others.

Credit is due the State extension economists for practically all of the statements in this report, as they were taken from the material included in their annual reports for 1938, or based on them. Reference to the States is given as an aid to the various State men in knowing where to look for additional information. It is hoped that some exchange of information will result from this report, and that a study of its contents will be of value to the States in their efforts to revise and broaden continuously the approach to farm-management work in accordance with changing conditions.

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FARM-MANAGEMENT ACTIVITIES OF EXTENSION ECONOMISTS

Northeastern States, 1938

AN ANALYSIS OF FARM-MANAGEMENT PROBLEMS AND PROGRAMS

The job of successfully operating a farm business in the Northeast is becoming more and more complex. It is the purpose of this report to discuss some of the situations that exist and to analyze the various approaches that economists in the Extension Service are now using to help farmers meet the management problems that confront them.

Farm management has been defined as the science that considers the organization and operation of the farm from the point of view of efficiency and continuous profit. Most of the farm-management extension work in the Northeast has been developed with this objective in view. The emphasis has been placed on getting the facts from actual farms; interpreting the facts from the standpoint of the farm business as a whole; and assisting individuals and groups in studying and applying the facts to improve financial returns.

As a result, a set of farm-management principles has been established as to "why some farms pay better than others." In establishing these principles it has been recognized that each farm and each farmer represents a different situation, but that there are certain fundamentals to which any farmer might turn for a comparative analysis of his operations. In general, four factors have been dominant in explaining variations in farm income, namely, size of business; production per acre or per animal; efficiency in the use of labor, machinery, and capital; and the proper combination of enterprises.

The Farm-Income Problem

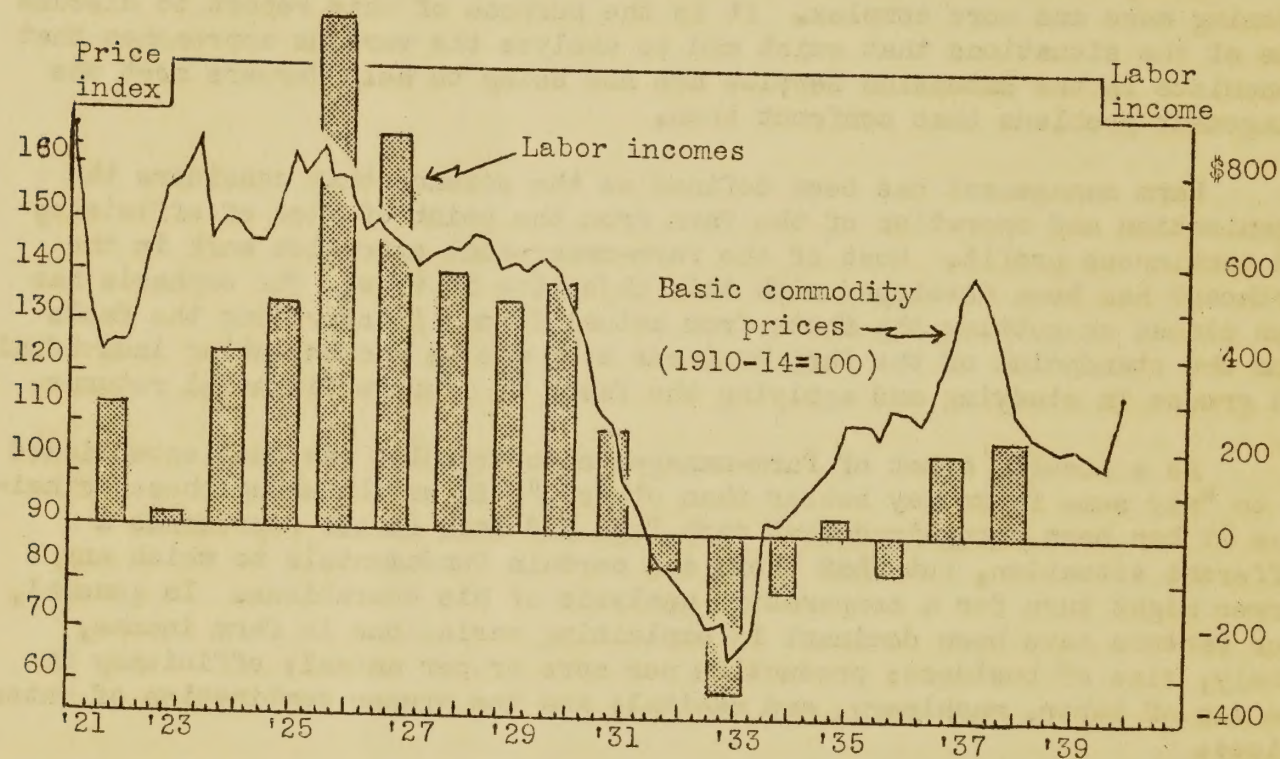
Conditions in the past decade have made it difficult for many farmers to apply the principles of size, production, efficiency, and balance to their businesses and be assured of a fair return for labor and investment. In general, attempts to improve income on farms during this period, through greater efficiency in production and better management, have been more than offset by the opposite effect of a falling price level with its resulting maladjustments in prices received, costs of production, costs of distribution, and the purchasing power of consumers. Various other factors, such as submarginal farm land, competition from new areas of production, and changes in demand for some farm products have contributed to the low incomes of certain individuals and from certain types of farming, but the effect of price disparities has been universal and paramount.

Some families have improved their financial position during this period because of quick adjustments to changing situations, special products

and special markets, and because of ability, financial or otherwise, to take advantage of situations created by the depression. But incomes for the bulk of farmers have been closely related to changes in the opportunity for profit during this period (table 1).

Table 1. The price level and labor incomes

Grade B dairy farms, New York



Source: Department of Agricultural Economics, Cornell University, Ithaca, N. Y.

The effect of a long series of unprofitable years is not easily measured, as many of the people operating farms at the end of such a period are not the same as those who operated them at the beginning. Losses written off and new capital brought in are not usually a matter of record. However, an appraisal of land resources, condition of buildings and equipment, indebtedness, tax delinquency, and the amount of working capital at the present time will all bear out the fact that the maintenance of a fair standard of living on farms during this period came at the expense of original resources, past accumulations, and prospective future earnings. Farmers today cannot stand "poor" years as well as they could 15 years ago.

Consequently, in an analysis of farm-management extension work in the Northeast at the present time, it is necessary to consider first what has been happening and the extent to which changed conditions have made it necessary to revise and broaden the thinking and approach to farm-management work. As has already been pointed out, attempts to improve farm incomes during recent years by better methods of farming have been more than offset

by changes in external situations. This is the reason why so much attention has been given in recent years to such fields of study as the price structure, land classification, the distribution system, local markets and industries, taxation, financing, and competition, in order that policies, programs, and facilities might be developed that would give farmers an opportunity to make a fair living.

The Place of Farm Management in an Agricultural Program

We may expect that farm-management extension men will continue to contribute heavily from their farm-management experience to activities of a broader nature contributing to the improvement of agricultural conditions. The work of county policy and farm-organization committees, conference boards, and county boards of agriculture has been well established in a number of the Northeastern States for several years. This type of work has been greatly enlarged under the cooperative State and Federal land use planning project. There is nothing more fundamental to the development and direction of farm-management work than a better understanding of the various factors influencing the welfare of a county's agriculture. Also a consideration of the adjustments needed in farm organization is essential to an "overall" program for any agricultural area. It is through these planning and policy committees that we can probably make the greatest progress toward a general recognition of the problems affecting agriculture, such as prices, purchasing power, land use, distribution, taxation, financing, competition, and maladjustments in farm organization. However, in this attempt to improve agricultural conditions in general, we cannot overlook the fact that a balance must be maintained between working on public problems in the interest of individuals, and assisting individuals on their own problems in the interest of the public welfare. It has always been a fact, in good years and poor years, that the differences in incomes among individuals in any 1 year are much greater than the differences in the average of incomes between any 2 years. Thus we find that a large part of our responsibility is still in helping individuals to do a better job with what they have and under conditions that exist.

The Scope of Farm Management

The scope of farm-management work as it is being developed in the Northeast includes outlook, selection of enterprises, organization, operation, buying, selling, and financing as they pertain to the management of the farm business. In general, this is the standpoint from which a farmer looks at it, for in making his decisions he has the farm as a whole in mind. A farmer would classify under farm management any and all the business decisions that an operator has to make on the farm, whether they have to do with production, buying, selling, or financing. When to buy or sell may be influenced by the outlook or by other farm operations, and in either case its soundness can only be measured by the way in which it affects the business as a whole. To manage and operate his farm business better, a farmer needs to know more about:

The probable future trend of prices and the economic potentialities of his farm (outlook).

Those enterprises that give promise of the best results over a period of years (selection of enterprises).

The combination of farm enterprises that will make the most efficient use of labor, equipment, power, buildings, land, etc., and result in the greatest total net income for the farm as a whole consistent with the conservation of resources (organization).

Efficient and profitable methods of production for the individual enterprises (operation).

What expenditures will give the greatest financial benefit and the best sources and methods of purchasing seed, feed, fertilizer, equipment, and other supplies (buying)

The time when it will be most profitable to sell the products of the farm, the marketing agencies best suited to handle such products, and how to prepare the products for market (selling).

The kind and amount of production and mortgage credit needed and the best sources for obtaining it (financing).

The use of farm and garden products in the home, and its relationship to income, expenses, and living conditions (home consumption).

The Characteristics of Northeastern Agriculture

To determine the best methods and procedure to use in helping farmers with their farm-management problems, it is of course necessary to consider and recognize the nature and characteristics of agriculture in the region.

The Northeast is a deficit area in practically all farm products, and is the only group of States in the United States which produces less of its major commodities than are consumed within the respective State borders. Competition with products from other areas is keen. The proximity to market offers an opportunity for many farmers to perform certain functions of distribution as a part of their farm business.

Changes in production in the Northeast take place slowly, for a high proportion of the land is in uses that either cannot or do not change readily. In New England, practically half of the farm land is in woods and better than one-third in hay and pasture. Less than 10 percent is in cultivated crops. For the remainder of the Northeastern States, about 20 percent is in cultivated crops. Consequently, changes are gradual and have been largely made through greater intensification either as to type of enterprise or rates of production. The main sources of income at the present time are milk, eggs, fruits, and vegetables. The per unit production of many of the commodities in these groups has been increased more

by the present generation of farmers than acreage or numbers. When a farming area in the Northeast has reached a point where it cannot further adjust through intensification, a public problem has been created. Most of the abandoned farms are a result of the inability of the farm to increase its output profitably, rather than to an actual decrease in the physical productivity of the land.

The type of agriculture within a community is diversified, and the number of enterprises which make up a single farm business are usually several. "Off type" enterprises have an important place in supplying local demands and catering to special markets. Numerous minor enterprises serve the purpose of balancing the business, thereby increasing the net income from the farm as a whole. The resulting structure is one of complexity, which prevails pretty generally throughout the region.

A farm in the Northeast is usually a fixed area of land which does not change from year to year. In general, the operator will be the man who owns the farm or one who has aspirations of becoming an owner either of that farm or some other farm. There is no so-called tenant class, landlord group, or corporate ownership in any appreciable amount. Under these conditions, there is a high degree of individual initiative and responsibility. The operator makes his own plans, and has sufficient security of tenure on a given piece of land to encourage a program of more than 1 year's duration.

The management of a farm in the Northeast is becoming more and more a business and scientific understanding. The investment per farm is increasing, expenses for operation are greater, efficient use of labor is becoming more important, modern equipment is essential for economical production, a farmer must know his soil and its needs, disease and insect control is necessary to obtain a crop, a knowledge of price relationships and market conditions often makes the difference between profit and loss. The trend is toward fewer commercial farms, larger in size of business and more complicated in their production and marketing technique. Special training and experience is more needed than formerly to operate successfully.

A knowledge and appreciation of the above situations is essential to a sound and effective approach to farm-management extension work in the Northeast, for these conditions characterize the systems of farming that are the backbone of Northeastern agriculture. Farms that may be classed as definitely producing for sale represent about three-fourths of the total in numbers and a much greater percentage in volume of production (table 2).

The Northeast has its one-crop farms, its abandoned farms, and its self-sufficing farms where abandonment is not taking place. Part-time farming is increasing in the proximity of main highways and near industrial centers, and there are many families taking up residence in the country for a part or all the year. It should also be remembered that in most any good area in the Northeast will be found a large number of farm families on small farms, and on lands too good to abandon at present but not good enough to support a commercial agriculture in the sense that it is practiced on the better farms. These people are usually full-time operators following

a more conservative system of farming, and are on an income level considerably lower than the average for the community. For example, the average net cash earnings on the 11,000 commercial farms in Connecticut in 1934 were approximately \$678. Forty-seven percent of these farms, however, had yearly earnings below \$600, and 22 percent had earnings below \$250.

Table 2. Type of farming, 12 Northeastern States, 1929

Type	:	Number	:	Percent
	:	of Farms	:	
Dairy	:	167,217	:	27.1
Poultry	:	42,948	:	6.9
Other livestock	:	13,455	:	2.2
Fruits, vegetables tobacco, etc.	:	76,970	:	12.4
General	:	128,959	:	20.9
Cash grain	:	6,642	:	1.1
Part-time	:	73,364	:	11.9
Self-sufficing	:	72,480	:	11.7
All other	:	36,044	:	5.8
TOTAL	:	618,079	:	100.0

Source: U. S. Census, 1930.

Methods of Approach

Obviously, the various groups living on farms in the Northeast are bound to have different problems, and the people themselves are likely to have different capabilities and desires. It is also true that the soils and topography of the Northeast do not locate these people in different geographic areas, but tend to mix them all up as a part of the same community. How to develop independent farm-management programs for all these groups and where to place the emphasis have been discussed pro and con for many years. In general, limited funds and personnel have made it necessary to concentrate farm-management work pretty largely with the group practicing commercial agriculture. Attempts to broaden contacts have been made, but usually to do this without serious curtailment of activities with the other groups has not been found possible and often has not been found as productive a use of time and funds. The newer agencies (Farm Security Administration, Agricultural Adjustment Administration, Soil Conservation Service), with enlarged scope and funds, have greatly aided in reaching people not formerly reached.

As all of their programs in the Northeast have considered farm management as the foundation on which to build, they have been a real help in bringing about a more widespread application of better farm-management practices to farmers with lower incomes.

The diversity of agriculture found in any one community and the specialized interests of individual farmers have caused much of the farm-management extension work in the Northeast to develop around types of farming. Also, because of the intermingling of production with marketing in the minds of farmers, extension economists in a number of the States do not confine their activities to a phase of agricultural economics work such as farm management, marketing, or credit, but prepare themselves to discuss the economic problems of dairy farmers, fruit farmers, etc., all along the line. In some of the States with only one or two economists, this approach is the only practical one.

There were 42 extension economists regularly employed in the 12 Northeastern States in 1938, according to the State plans of work. Probably 15 to 20 more could be added to this number if full- and part-time assistants were included. From the activities listed in the plans of work for these 42 men, only 11 can be considered as doing primarily farm-management work and 14 primarily marketing, while 17 were responsible for several phases of economic work. There were 10 of the 42 who had joint responsibility for research and extension, and 3 who had joint responsibility with other agencies (Agricultural Adjustment Administration, Bureau of Agricultural Economics, and State department of markets). Most of the extension economists in the Northeast are considered a part of their department of agricultural economics or have office space with workers in research and teaching. In all cases the relationships are very close - considerable extension work is being done by the research and teaching staff and more and more short-time investigational and fact-gathering work is being done in connection with extension activities.

At the same time that the lines of responsibility have been changing among economists, other groups in the Extension Service have been broadening the scope of their work. Production specialists are being looked upon more as commodity specialists, since the addition of market activities pertaining to quality, grading, packaging, etc. Many of them are also handling outlook work as it pertains to their commodity, and are thinking in terms of the place that their specialty has in the farm business. The economic justification for certain controls and practices is being considered and presented to farmers by entomologists, pathologists, agronomists, and engineers. Home economists are presenting the farm outlook to women and are considering farm income and expense as it is related to living costs and conditions. The supervisors of extension work are building programs around systems of farming, and therefore are thinking more and more in terms of a farm business, and how the various specialists and agents can function best in coordinating their efforts.

Farm-Management Activities of Extension Economists

It is now undoubtedly clear as to why all these preliminary comments seem advisable as an introduction to a discussion of the farm-management

activities of extension economists in the Northeast in 1938. Many farm-management extension workers have responsibility for other activities. Much assistance is given to other specialists and much is received in return. Adjustments in approach are being made continuously. The characteristics of the agriculture and the nature of the problems call for close cooperation and joint contribution of specialists. The work is developing more as a series of contributions to specific projects and services which the Extension Service as a whole is conducting for farm people, than as a series of independent farm-management activities. This report, however, will cover only the contribution to farm-management work made by extension economists, but it will indicate how the activities of these economists are related to projects conducted cooperatively with others.

The activities of extension economists in the field of farm management will be discussed under three headings: Obtaining the facts and preparing them for use; developing programs for the various areas and types of farming; and assisting individuals in making decisions. In any procedure for carrying out these three general phases of the work, there will be and should be considerable overlapping. In obtaining information through farm accounts, individuals are being assisted in making adjustments. A local farm-management survey not only gets certain information, but also helps the county agent participating in the survey to get a better understanding of farm management in his county. In developing a coordinated dairy farm program the various specialists learn much about the place of their own field of work in the farm business. In land-use planning, the relationship and comparative advantages of different systems are brought out. Also, conferences with specialists, agents, appraisers, assessors, farmer committeemen, and land-use agencies help farm-management specialists to realine their activities to include information and interpretations not previously recognized.

The chief purpose of making this report is to acquaint others with what is being done. Further information can, of course, be obtained from the various States, and it is hoped that some exchange of information will result from this report. In reporting on the activities of any one year there are many worth while pieces of work that do not appear, simply because they may have just been completed or are merely contemplated for the coming year. However, the various activities reported here for 1938 are representative of what might be carried on in any year. Reference to the States is given as an aid to the various State men in knowing where to look for additional information. There is no thought that any one of the activities should be incorporated in States where they may not now be present. That is a matter of judgment which must involve consideration of many factors unknown to an outsider.

OBTAINING THE FACTS AND PREPARING THEM FOR USE

Although in general most of the facts used in farm management extension work come from studies made by the research staffs at the Colleges of Agriculture and elsewhere, there is much in the way of facts that is accumulated as a part of extension work. This is usually in the nature of additional local information needed to apply general principles, or investigations of short duration needed to guide the thinking and action of farmers. It is one of the major functions of farm management extension work to bring into the discussions with farmers, some of the information which farmers themselves have not had an opportunity to learn from the operation of their own farm or from observation of other farmers in the community. Many of the factors contributing to success in farming, as in any other business, are not apparent except as brought out by special analysis of a large number of farms. If farmers are given these factors for success and an opportunity to consider them in the light of their own practical experience, their judgment as to what to do on their own farms and under their own conditions is usually pretty sound.

Consequently, to develop a better understanding on the part of farmers as to the various factors contributing to success in farming, it is absolutely essential to have some facts to start with as to "why some farms pay better than others." The variety in types and systems of farming, even within a single community has made it necessary to carry on much more research in the Northeast than might be necessary in some other areas, in order to learn what are the best farm organizations for the different situations. Changing conditions have made it necessary to verify continually and revise the conclusions drawn from earlier studies; and the wide differences between communities have made some local data advisable.

Extension economists in the Northeast have moved rather strongly into the field of getting many of the facts needed to develop a farm-management extension program. This has been done largely through farm accounts, farm-management surveys, enterprise accounts, enterprise surveys, and other special surveys and records. Most of the farm information is collected and analyzed according to types of farming and the enterprise data are, of course, analyzed according to commodities. There is also considerable assembling and rewriting of farm-management material already collected but not available for specific purposes or in the forms needed. Mimeographed pamphlets are considered rather effective as a means of making pertinent facts available to various groups. Charts, film strips, slides, etc., are used generally in meetings as a means of visualizing farm-management information. Special analysis is made of unpublished research data in order that they may be presented to farmers earlier than they would be if the entire responsibility fell on the research staff.

Economic Information

No attempt will be made in this report to present or discuss the details of the various economic-information services that have been developed to keep farmers informed of the many influences outside the farm that they

must consider in the operation of their businesses. Information on outlook, marketing, and credit, is just as essential to a farmer in making his decisions as information on farm organizations or efficiencies in production. They must all be considered as they relate to each other, and as they affect the net income from the farm as a whole.

The trend in the preparation and use of economic information in the Northeast is to make it more practical and more timely, and to use it as a part of the farm-management program. For example, the price outlook is presented as a part of the farm account and enterprise reports and is discussed as it relates to the adjustments that should be made in the farm business.

All farm-business analysis meetings with farmers include a consideration of buying, selling, and financing as they affect the successful management of the farm. The economics of buying, selling, and financing are becoming increasingly important, and more information is needed as to just how these things do affect farm income and what can be done on the farm because of the situations that exist. More information is also being used in regard to the place of production for home consumption and how it affects income, expenses, and living conditions on the farm.

The amount of work being done by extension economists in all these phases of economic information is so great that it warrants special consideration in separate reports. Consequently, for the purposes of this report, it is assumed that in the various activities discussed, all information available pertaining to farm incomes is used, and that the primary function of these farm-management activities is to bring together and apply information from various sources to the problem of how to make more money from the farm business as a whole.

Farm Accounts

Some of the States use farm accounts as their main source of facts on which to build farm programs; others use them primarily as a farm analysis and planning service to individuals. There were 154 accounts summarized in Maine; 302, in Connecticut; 114, in Pennsylvania; 73, in Maryland; 40, in Massachusetts; 16, in New Hampshire; and 105 cooperators were included in the organized county-account projects in New York. Rhode Island started an account project in 1938 with 38 dairymen and 36 poultrymen. All the aforementioned work contemplates the issuing of reports for general use in extension work in addition to the service given to the individual cooperators. The importance of farm-account work in the extension program is influenced considerably by the emphasis that may be placed on enterprise accounts, surveys, and the amount of factual material available from the experiment station.

Enterprise Accounts

Most of the enterprise-account work is handled in cooperation with the commodity specialists, and often includes technical as well as economic information. There were 123 poultry-enterprise accounts sent in for summarizing

in Maine; 88, in Pennsylvania; and 75 poultrymen and a few "broiler" men co-operated on cost projects in Delaware. Other livestock cost records were mentioned only in Pennsylvania, where 20 livestock records, 291 cost of milk production records, and 11 brood-sow records were summarized. Enterprise records for crops were important in New York, Pennsylvania, and Delaware. With the cooperation of growers who kept records, information on costs of producing canning-factory tomatoes, potatoes, and cauliflower was made available to growers in all parts of New York. During 1938, about 70 growers kept records on tomatoes in the western New York fruit area. In Pennsylvania, 68 potato cost records were summarized, 117 canning-tomato, 48 canning-pea, 95 canning-sweet-corn, and 66 other field crops. In Delaware a small number of records were kept by tomato growers; 15, for cucumbers; 58, for corn; 30, for soybeans; and 15, for sweetpotatoes.

In reviewing enterprise-account work, it should be kept in mind that wherever farm accounts are summarized by types of farming, as they are in most of the Northeast, considerable commodity data are obtained in this way. The above report of course does not include cost-record work done by the experiment station or by commodity extension specialists and county agents if not reported by the extension economists. In a number of the States, a fairly continuous body of cost-of-production data for the important enterprises is available from the experiment station, and in practically all States studies are made often enough to make it possible to estimate average costs rather accurately at any time.

A special enterprise record project is being conducted in Maine on the sales side as contrasted to cost of production, which has been emphasized in most enterprise work. This work is being done in Aroostook County by supplying potato growers with potato sales books and bin cards. For the 1937 season 78 books were summarized, and 537 books and 5,000 bin cards were requested in 1938. All the contact with growers was made through correspondence. The information obtained is on potato yields, production, storage, and sales.

Farm-Management Surveys

Farm-business analysis surveys were conducted in Bennington, Essex, and Chittendon Counties, Vermont. These surveys are carried on for two purposes - as a means of determining sound farm-management practices for different areas and as a method for training county agents in farm management. A total of 225 records were included in the three surveys. In order to supply some basic farm-management information for use in formulating the poultry extension program, a survey was made of about 125 poultry farms in eastern Massachusetts. Also, a survey of dairy farms in the town of Ashfield was made in cooperation with the vocational-agriculture teacher, who submitted the records to the college for summarization and study. Income survey records on 100 farms to supplement the farm account-book records were obtained in Connecticut. These records were taken on the types of farms not adequately covered by the accounts. As a teaching device and to obtain factual information on local situations, community farm-management surveys were conducted in three areas in New York: 121 farms in a dairy area of

Lewis County, 97 farms in a general farming area of Genesee County, and 149 farms in the vegetable area of Albany, Schenectady, and Saratoga Counties.

Special Studies and Reports

Considerable time of extension economists is spent in making special investigations and in assembling available data for specific purposes. The results of most of this work are made available in mimeograph form for use in connection with various activities. The following brief statements will give an idea of the nature and scope of this work. Only studies that may be considered as having a direct bearing on farm management are reported here. Some of these studies have been aided by experiment-station funds and personnel. However, they are reported as extension activities, which indicates that they were made in cooperation with the Extension Service, if not entirely by it.

Maine. - A study was completed in Maine, and the results were published in a report entitled "A Comparison of Bin and Box Storage for Potatoes." A study in cooperation with the canning industry was continued to determine the effect of the number of pickings on yield and quality. Most of the work in 1938 was done on green snap beans. In setting up price systems based on U. S. grades, canners attempt to provide compensation in the form of a higher price for the more immature beans to offset the lower yields and higher costs because of frequent picking. Also the farm-management specialists in Maine cooperated with the Agricultural Adjustment Administration in assembling on punch cards the economic data from the 1937 summary sheets. These data relate to acreage of farm land, crops grown, practices used, and, where available, the age of the operator, livestock numbers, and manure-storage practices. About 10,000 persons participated in the program, which provides a very good sample of Maine agriculture and more up-to-date information on the farms than could be obtained from the census. Examples of work done in assembling and tabulating economic data for other specialists are, the report on "the home-production program" and the study of the "dairy herd-improvement association records."

Vermont. - In May, work was started in Vermont on tabulating and summarizing the information contained on the 1937 work sheets of the agricultural conservation program. The purpose of the study was to determine the participation in the program by land classes, the soil-building allowance, and the percentage of soil-building allowance earned by farms located in the four land class areas; and to determine something of the popularity of the various practices. The results of the study were made available for distribution in mimeographed form. A set of handbooks, one for each county, entitled, "Farm-Management Facts" was prepared, which brought together much scattered material for more effective use in the counties.

Massachusetts. - The town of Hardwick in Worcester County, Mass., was selected for a study of land-use problems and methods for meeting them. Though the study involved practically the total economy of the town, much of it dealt with a farm-management analysis. The farms of the town were mapped to show fields and the type of cover. This was followed by a soils

map of each farm showing type, slope, degree of erosion, and general conditions. Soil samples were taken on each parcel of land and tested for soil nutrient deficiencies. The mapping procedure was followed by a thorough inventory and study of woodlot-management practices, and estimates were made as to future production under various types of management. In the meantime a survey record was taken of the farm business which contained information for making a farm budgetary analysis.

Connecticut. - Through the account and survey records, a large amount of factual information has been accumulated in regard to organization and operation of farms in Connecticut. The use of such material by county agents, specialists, cooperative organizations, and other agencies is one of the best ways of reaching a large number of farmers with farm-management information. The following studies were made at the request of other specialists for information: Rates and ranges of grain and roughage fed on dairy farms and milk-production results; cost of producing milk; the amount of indebtedness existing on various types of farms in Connecticut; the effect of increased production of alfalfa and clover and of pasture improvement on farm income.

One of the best examples of the response of extension economists to requests of farm people in getting for them the information needed on which to construct programs and make individual decisions is illustrated by the surveys that followed the hurricane of September 21. A statement from the Connecticut report outlines the types of information obtained and is representative of the work done throughout New England in the areas hit by the storm.

"The hurricane of September 21 was so severe that during the month of October all members of the department worked on rehabilitation problems. We assisted in obtaining names of farmers who had to have immediate financial aid in order to remain in business. In getting this information, a complete survey in the five counties that were badly hit by the hurricane was taken. In this survey, an estimate of each man's losses of buildings, livestock, and crops was made; also, an estimate was made of the amount of money each person would need in order to carry on his farm business as in the past."

Rhode Island. - A mimeographed bulletin, How Shall We Use Our Farm Lands Profitably? was prepared in Rhode Island for general use in committee meetings over the State. The bulletin presented the long-time trends in agriculture in the State and some of the problems in connection with the maintenance and use of soil resources on the different types of farms. An attempt was also made to incorporate an analysis of farm-management problems into a series of mimeographed pamphlets used to develop a farm program for each of the important types of farming - dairy, poultry, fruit, vegetables, and potatoes. The preparation of these pamphlets called for selection and special analysis of available data. Examples of other special studies made for agencies needing information are those requested by the Farm Security Administration on the advantages and disadvantages of the

cooperative purchase of farm machinery and equipment in Rhode Island; and the situation with regard to the growing of cereal grains for feed in the State.

New York. - Examples of the special studies and analysis of available material made on farm-management problems by the extension economists in New York, other than the regular farm account and survey reports is indicated by the following mimeograph pamphlets prepared or released in 1938. In many instances these pamphlets represent a special preparation of material from active research projects for use in farmer meetings prior to the final completion of the study. The list is incomplete, but is given to indicate the nature of the work.

- Sheep Farm Management and Production Costs.
- Some Successful Farms in 1938.
- Cost of Operating Equipment on New York Farms.
- Financial Returns From Fruit Farming for 24 Years.
- The Land-Use Problem in New York State.
- Fires and Insurance on Mortgaged Farms.
- Costs in Dairy Farming in New York.
- Questions and Answers About the Federal Income Tax for Farmers.
- The Outlook for Farm Labor in New York.
- Trends in Returns From Important Farm Enterprises in New York.

New Jersey. - A study of land use on farms was started in the fall of 1938 in New Jersey. The study consists of taking information from the Agricultural Adjustment Administration work sheets and analyzing it for use in developing farm-management and land-use programs. A great deal of information is being gathered on how farmers are using the land, which will aid in locating the various sizes and types of farms and studying the relationship of farm organization to physical characteristics.

DEVELOPING PROGRAMS FOR THE VARIOUS AREAS AND TYPES OF FARMING

One of the most important uses being made of farm-management data is in developing programs for the farm as a whole designed to improve farm income and living conditions. This work calls for the joint participation of supervisors, specialists, county agents, and farm people. Most of the programs are developed around a type of farming, because considerable diversity prevails in the various areas. The methods vary, but in general the idea is to pool the information and experiences of the group through a consideration of farm problems and what can be done about them. A program is then developed which serves as the basis for the activities of all workers concerned.

As land-classification maps have been developed, an attempt has been made to consider farm programs for areas as well as types of farming. The land use planning project with its mapping features should establish a basis for greatly expanding farm-management analysis on an area basis. The need for farm-management information by all agencies developing programs for the use of agricultural land establishes new activities for the extension economists in servicing these agencies with background and local data in farm management.

Maine. - The work of developing farm programs in Maine has been done rather largely on a county basis under the Farm Organization project. Each system of farming, however, is considered separately, and the program developed recognizes the differences in farm set-ups. The plan adopted consists of assembling information relative to the various phases of agriculture in the county. The information is then presented and fully discussed with a county committee of leading farmers and others interested in agriculture. In 1938 a report was completed in Kennebec County and preliminary work started in Cumberland County.

New Hampshire. - The Dairy-Crops-Farm Management project in New Hampshire might be considered either a service to individuals or a method of developing a coordinated program. It serves both purposes, because the specialists and agents participating lay the ground work for their program by taking part in an analysis and reorganization of a farm business on actual farms. Twelve farms were mapped in 1938, and farm-organization plans were drawn in cooperation with the dairy and agronomy specialists and in consultation with the farmer. The first approach has been from the crop angle, to provide through a better cropping system the roughage needs for the farm at present. The next step is to analyze the accounts and lay plans for the future development of the farm, with more cows or hens or a cash crop, as conditions warrant. This work has emphasized the need for a broader pasture program as follows: More roughage from pasture; additional pasture from hayland; providing some annual pasture; supplementing pasture; timeliness in supplementing pasture.

Massachusetts. - As a new feature in the development of industry programs in Massachusetts, a coordinated extension project was outlined in the nature of a dairy farm institute. This feature is similar to the approach, used successfully in Connecticut, and consists of holding a series

of three all-day meetings, about 1 month apart in the counties where the plan is followed. An actual farm typical of many Massachusetts dairy farms is used in considering problems of reorganization, of making adjustments, and the probable effects of these adjustments on the farm income. The specialists in agronomy, animal husbandry, and farm management conduct the meetings and take up the problems of adjusting feeding practices, forage-crop management and improvement, replacements, and so forth, in the light of the conditions that are found on this actual farm. The object of this project is to enable dairymen to think through important problems of their business and to consider these problems in their relation to the business as a whole. However, it will serve as one of the best means of bringing the thinking of the various specialists closer together and enable them to do a better job in developing the dairy programs with the county dairy committees.

Vermont. - In 1938, the work of extension economists in Vermont related to developing farm programs was made a part of the county agricultural policy committee's considerations. It was decided to hold three meetings in each county, the first to consider a State policy for the use of nonfarm land and land not best adapted to farming; the second to consider land policies from the standpoint of maintaining productivity, controlling erosion, and returning a profit in the long run; and the third to consider an individual farm land policy in view of the outlook, the conservation program, and taking into consideration farm-management principles. Some of the questions of a farm-management nature that were discussed with these committees are:

Is the price of milk what's wrong with farming?
Should Vermont dairy farmers raise more of their own grain?
Should Vermont farmers keep fewer dairy cows and more of other livestock?
How does your total tax bill this year compare with your bill 20 years ago?
Will abandonment of Vermont farms continue?
Has the average farmer kept his farm in as good condition as it was when he took it over?
Will the present agricultural conservation program prevent further abandonment of Vermont farms?
Can we help ourselves?
What are the minimum requirements for an efficient farm set-up as to number of cows, cows per man, milk per cow, and sources of income?

In the fall of 1937 a series of 2-day schools for local conservation committeemen was held in Vermont, one in each county. The purpose was to tie in subject matter in the fields of agricultural economics and agronomy with the conservation program; also with the idea of getting local committeemen better posted as to land classification, soil types, and farm organization and management, so that they would be able to advise cooperators more intelligently concerning the practice or practices available under the program that would be most valuable to the individual under his circumstances. The first morning was devoted to a discussion of land classes and soil types and the afternoon to a tour showing land classes and soil types. The

morning of the second day was devoted to a discussion of factors affecting profits from farming and to farm-management set-ups for the area. On the last half day the selection of conservation practices to fit individual farm conditions was considered. Material used at these schools included a farm-management handbook for each county.

Connecticut. - A coordinated dairy program with the income approach was developed and carried out in Connecticut in 1938. This work included the extension specialists in dairy, agronomy, agricultural engineering, forestry, and farm management. The group spent about 2 days in analyzing the income problems on dairy farms and in formulating the program, which emphasized the importance of obtaining better feed-crop production by increasing acreages of clover and alfalfa and making pasture improvements. Reduction of purchased grain and the raising of more young stock to provide cow replacements was advocated as the best means of utilizing the increased feed-crop yields.

The program was submitted to county agents and dairy committees in each county for criticism and revision, and then the production specialists, working together, formulated methods and teaching material to put the program "across." In four counties, three county-wide all-day dairy institutes were held during January, February, and March. Each of the other four counties was divided into either two or three areas, and all-day institutes were held in each of these areas during January, February, and March.

A typical Connecticut dairy farm was used throughout the three meetings in presenting the program. The present set-up of the farm was presented. The feed-crop system was adjusted. The various ways in which the extra nutrients produced on the farm could be used were analyzed in detail. All the adjustments made were tested to determine the effect of such adjustments on income.

In formulating the poultry-farm program in Connecticut, the poultry and farm-management specialists assembled and analyzed all factual information in regard to poultry farms. A detailed study was made to determine the important profit factors on these farms. These basic data were presented to poultry committees in each county, and the program was developed in co-operation with poultrymen.

The farm management department of the Connecticut Extension Service played an important part in the development of these coordinated programs by supplying up-to-date factual information in regard to different kinds of farm organization and various methods used in operation. Each year an analysis is made showing the important profit factors on Connecticut dairy farms. The six-point efficiency program for poultrymen was determined largely from farm account-book records. The fruit and vegetable specialists worked in close contact with the farm-management specialist in formulating their programs. Adjustments made in the programs were aimed to increase the net cash earnings.

Rhode Island. - In the fall of each year the economic specialists in Rhode Island bring together for consideration farm-management material pertaining to the situation facing farmers in the different types of farming. This economic material is assembled with that of other specialists and mimeographed for use in developing programs. Committees of specialists are formed to meet with the commodity committees of the Farm Bureau in each county. In this way, a program is developed for dairy, poultry, fruit, and vegetable and potato farmers, and for market gardeners. The farm-account project, which has just been started with dairymen and poultrymen, will serve as an important source of information for this work.

New York. - In New York State the development of programs for the different types of farming is considered through two approaches. In either approach, farm management is a fundamental part of the procedure and is basic to the program. Groups of specialists at the college have been formed around types of farming, such as dairy, poultry, fruit, and vegetable. These committees are composed of extension representatives from the respective departments of agricultural economics, agronomy, dairy, animal husbandry, poultry, pomology, crops, engineering, etc. The committees prepare annually a statement in pamphlet form of the situation facing a particular type of farming and the facts that should be considered in developing a program with farmers. The pamphlets are prepared for the county agents to consider in conjunction with their county commodity or type of farming committees and to use in realining and adjusting their county extension program to changing conditions.

Farm management is also a fundamental part of county agricultural conference committee work. The committees, which are composed of from 15 to 30 farmers, make a detailed analysis of the agricultural situation in their county and formulate a county agricultural policy. The committee does not draft a program, but rather a policy for the agriculture in the county which will serve as a basis for programs. Several community farm-management surveys usually precede any attempt to formulate a policy for the county as a whole. These surveys are so located as to represent different types of agriculture in the county.

West Virginia. - In the reports developed by the county agricultural-planning committees in West Virginia a section is devoted to "minimum farm-management recommendations for each important type of farming in the county." This analysis was made in four counties in 1938 and will be considered by the various specialists in adapting their approach to the problems of farm operation in these counties.

ASSISTING INDIVIDUALS IN MAKING DECISIONS

Direct contact with individual farmers by the farm-management specialists has been decreasing, that is, the proportion of time spent in this way is smaller than formerly. This is a natural result of placing more emphasis on assembling and making available the farm-management information needed by other specialists and county agents; working with them in developing programs for the farm as a whole; and assisting them in getting a better understanding of farm-management background. In other words, the real activities of farm-management extension workers cannot be measured in terms of what they are doing with farmers directly, for there is a deliberate attempt on their part to work through and with other members of the extension staff. However, here are some of the ways in which direct contacts with farmers are being made:

Accounts and Surveys

The individual conferences with farm people through accounts and surveys are few in terms of the percentage of total farm families reached in other ways. However, when one considers the kind of decisions that are considered with these people and the importance of helping them think through how to make the needed adjustments in their businesses, these contacts represent a very effective medium for bringing about changes in farm operation. Also, the farm-account cooperators are usually leaders in their communities, and their influence spreads to many others.

The kind and amount of account and survey work being done have been described under the section on, Obtaining the Facts and Preparing Them for Use, (p. 9). Reference will be made here only to the way in which these projects serve as means of helping farmers to make decisions, by citing the methods used in conducting the work.

Maine. - Most of the contacts in Maine with the cooperators in farm accounts, poultry records, and potato sales books, are made through correspondence of the county agents. During the year, however, personal calls are made to many of the cooperators by the county agents. The farm-management specialist accompanies the county agent on several of these calls. A total of 101 personal calls to farm-account cooperators were made by the farm-management specialists in 1938. The county agent, however, takes the responsibility for the account work, distributes the books, checks them in, and mails them to the college for summarizing.

During the summer, a new tentative poultry-account book was worked up for large, commercial poultry farms. About a dozen of these books were put out, and during the year calls will be made on the cooperators by the farm-management specialist for criticism and ideas.

Vermont. - The results of the farm-management surveys in Vermont are used in four ways in the county:

The farmers who contributed the records and made possible the study will receive a copy of the mimeographed brieflet comparing factors on their own farm with the averages for the study.

A series of 8 or 10 cards is prepared and sent to the complete mailing list in the county to inform farmers of the results of the survey.

A series of meetings in the county is planned for the winter months. These meetings are not confined to the area where the survey was made.

The mimeographed brieflet is available for general distribution.

During the past year the Vermont farm-account book was revised and 2,000 copies were printed. No effort is made to place farm-account books for the purpose of collecting and summarizing them at the end of the year. However, during 1937, 437 books were requested and distributed through either the State office or the county agent's office. The State office has offered to summarize books that might be turned in to the county agents as a service to the farmers keeping the records.

A few dairy herd-improvement members started keeping a complete farm account in the spring of 1937. Fifteen books were sent in to the State office and forwarded to Washington for summarizing. Summaries were returned to the farmer with his book. All contacts were made by mail.

Massachusetts. - In 1937 special effort in Massachusetts was made to interest farmers in keeping a farm record. Records for eastern and western Massachusetts were summarized in separate reports, to be returned to the cooperating farmers. A number of other off-type records were summarized separately and returned to the farmers. In December 1937, a new farm-account book became available. An effort was made to increase the number of cooperators, which resulted in distributing books to 258 farmers. The efforts to obtain new cooperators consisted of meetings, farm visits, letters, radio, and news articles. Some personal follow-up work is being done by the county agents. The farm-management specialist accompanied the county agent on some of these visits.

A revision is also being made in the poultry account to make it conform more nearly to that of the general farm-account book. The book will be available to poultrymen for starting records January 1, 1939. The plans are to conduct poultry-account work similar to that of the farm accounts.

Assistance was given to several producer-dealers interested in keeping a record of their entire farm who were having some difficulty in keeping track of their milk sales and the credit extensions involved. A brief study of methods being used by some producer-dealers was made, and ideas and suggestions were passed on to others.

Connecticut. - There are two main objectives in the account-book project of Connecticut. The first is to aid and guide farmers cooperating in keeping accounts to make adjustments that will enable them to increase their farm earnings. The second is to furnish farmers, extension workers, and others concerned with agricultural problems, data in regard to the important factors that determine profits on Connecticut farms.

In 1938, assistance was given in Connecticut to 688 farmers in taking a farm inventory and setting up an accounting system. This involved not only going through the mechanical procedure of taking an inventory and determining headings for the columnar journal, but, from information obtained in doing this, a discussion followed with the farmer concerning the operation of his business for the coming year. Assistance was given only at the request of farmers for an accounting system.

Follow-up work with account-book cooperators was done mostly by correspondence, leaflets, and summaries of account-book records. Visits during the year to check on account books were not made except by request. At the end of the year, a farm visit was made to close the book and set up a new book for the coming year. The books were closed in the State office and returned by mail with a statement showing strong and weak points and giving suggestions for changes, and pointing out the probable effect on income from making such changes.

The Connecticut report points out that a larger number of account books could be handled by eliminating some of the personal service given in business management. However, the aim is not only to establish a good and simple accounting system on as many farms as possible, but to aid farmers to use the information obtained from the records in developing a sounder and more profitable business.

Rhode Island. - In Rhode Island an inventory was taken and a farm account started as of November 1 on 36 poultry farms. Organization meetings were held at which the plan was outlined and the method of keeping the account explained. A set of mimeographed suggestions relating to questions commonly arising in keeping farm records was prepared and given to each cooperator. Assistance in taking inventories and beginning accounts as of January 1 was given to 36 dairy farmers. A memorandum of suggestions similar to those for the poultry farms was supplied to each cooperator. After harvest, a letter was sent to those actively keeping farm records. In October and December a letter on suggestions for closing the book was sent to the poultrymen and dairymen, respectively. Frequent contacts throughout the year are maintained with cooperators, the length of time between visits varying with the apparent need for assistance. The work is conducted in cooperation with the county agent; on poultry farms, with the poultry specialist; and on dairy farms, with the dairy specialist.

In eastern Rhode Island, monthly meetings were held to which the farmers keeping records were invited. They were requested to bring their account books and to ask questions. The poultry and dairy specialists assisted with production problems. Appropriate programs were arranged for each meeting.

Arrangements have been made to continue the work with poultry and dairy accounts. Tentative plans have been made to contact market gardeners for the purpose of having 8 or 10 of these men cooperate in keeping records. Plans have also been discussed which would organize 10 or 12 young apple producers into a farm-management club with each keeping a financial record of his business.

New York. - In 1938, farm-management surveys in New York State were made by the extension staff in a dairy area, a crops area, and a vegetable area. The results of such surveys are used at summary meetings in the community where the records are taken, and also as a basis for discussion in other communities. This method of doing farm-management extension work, although limited to but a few sections in any one year, provides a definite and tangible basis for showing the application of broad farm-management principles to local conditions.

Farm account work as a regularly organized service project was carried on with 12 cooperators in Sullivan County; 20, in Wayne County; 11, in Madison County; and was started with 62 in Steuben County. This farm-account work is looked upon as a more specific method than the survey in helping individual farmers to apply the principles of farm management to their particular farm businesses.

The regular 3-year basis on which this project is organized will be continued. At the close of 1937, projects were completed in Wyoming, Seneca, and Tioga Counties. Farm-account work in various counties on an unorganized basis is progressing, and as interest grows the project will be enlarged to include a few of these counties each year. During the 3 years 1936, 1937, and 1938, the first edition of 5,000 copies of the New York farm-account book was exhausted. Roughly, one-third of these books were used in organized projects.

As a result of experience in recent years, the farm-account book itself has been reorganized for use beginning in 1939. The inventory section of the book has been developed into an inventory for 5 years and printed as a separate book. This will greatly facilitate the taking of inventories, in that it eliminates the necessity of copying the inventory over each year. The remainder of the account book, including expenses, receipts, and the record of crop production has been developed into a farm cash account book which provides the keeping of this record on a yearly basis.

Most of the farm-account work is done on dairy farms. However, assistance was also given to growers of fruits and vegetables during the year in making necessary adjustments in their individual farm businesses. Cost of production surveys in cooperation with growers were made on canning-factory tomatoes, potatoes, and cauliflower. The reports from these surveys included not only information on costs of producing these crops, but also on the variations in costs, factors causing these variations, and specific suggestions as to how costs could be reduced and profits increased. The material was used at numerous meetings with growers and others.

During the year, assistance was given in analyzing individual poultry-farm businesses and making suggestions for improvement. Very little has been done in organized account work on poultry farms. Commercial poultry farms are rather far apart, and it is difficult to get a sufficient number to have an organized project that is practical. An attempt was made in 1938 to organize a project in one county. A few poultry-account books in several different counties were summarized and analyzed for individual

poultrymen. The poultry account offers good possibilities for effective extension teaching, although a great deal of time is needed to give each cooperator enough attention to make the project most effective.

Pennsylvania. - During the past year there has been a demand from all sections of Pennsylvania for farm-management work, meetings, cost of production information, farm-management problems, lease contracts, surveys, and survey analysis. It has seemed evident at all times that farmers are putting more thought into the operation of their farms.

Most of the farm-management work in Pennsylvania is centered around the farm and enterprise accounts, which are designed primarily to help individual farmers make the needed adjustments. In 1938, about 300 more farm accounts were in use than in the previous year. There were 114 farm accounts summarized for individuals, and about 800 enterprise records. The enterprise or cost of production records were on field crops, livestock, milk, brood sows, poultry, potatoes, and canning tomatoes, peas, and sweet corn. Each farmer has his own record returned to him along with the summaries for the counties and State. These cooperators also have an opportunity to attend meetings where the results of records are discussed, and many have received individual assistance on specific problems by the farm-management specialist.

New Jersey. - The farm-account book in New Jersey was revised and reprinted in 1938. The book is put out by the county agent and is free to those farmers who cooperate by submitting their inventory and financial statements at the end of the year. There is also a cooperative project in farm accounts between the Extension Service and the Soil Conservation Service. The latter is placing the books with their cooperators and helping them with their account problems. A summary will be made of the records at the end of the year, and the results will be used to assist the individuals in making adjustments.

Delaware. - During January and February, about 100 farm records were distributed to farmers in Delaware through the cooperation of county agents, club agents, and poultry specialists. One day was spent with each club agent in assisting club boys who were keeping farm records. Their books were inspected and checked for errors. Definite suggestions were given in regard to summarizing and using the accounts.

A poultry cost account book was made to fit the Delaware poultrymen in cooperation with the poultry specialist. Seventy-five poultrymen are now sending in monthly reports on production, receipts, and expenses of their flocks. These are being summarized each month and will form a basis for aiding the poultrymen in improving flock management.

A broiler-account card was made up in cooperation with the poultry specialist. This card is being kept by some of the broiler raisers in Sussex County in cooperation with the county agent. Accounts are made so that producers can keep separate records on each house. Costs accounts were also kept for tomatoes, cucumbers, corn, soybeans, and sweetpotatoes.

The records are being sent into the county agent's office for checking and forwarding to the State office. The summary and data will be compared with those for previous years and used as a basis for aiding producers in increasing their profits from these commodities.

Maryland. - The objectives toward which farm account work in Maryland is striving are, first, rendering aid while the record is being kept; second, analyzing the records when completed; third, making comparisons of efficiency factors on the same types of farms; and fourth, making results available to a larger number of farmers. In this respect a shift has been made toward keeping records on definite types of farms and increasing the number of records in each type so that the sample may be large enough to make the results reliable for that particular year.

Because of the constant and painstaking effort required to complete a farm account book, personal visits and close supervision are necessary the first year or two while the farmer is learning to keep the records. The account books are distributed over an area as representatively as possible of the various kinds of farm business but centralized close enough together to keep the costs for visits at a minimum. The new cooperators were visited three times during the year and the older ones only once or twice. Most of the visits are made with the county agent, and many problems are discussed in addition to the accounts.

West Virginia. - Farm record book work has not been set up as an active project in West Virginia because of limitation of funds and personnel, and because of the greater relative importance of other work. Over 300 books, however, were sent out to agents and farmers as the result of direct farmer requests. Several of the agents plan to summarize these books and hold meetings to discuss them.

Farm-Inventory Campaigns

Maine. - Thousands of Maine farmers apply annually to local banks, production-credit associations, the Farm Security Administration, and other credit institutions for money with which to finance agriculture. Many of these agencies require a list of real estate, equipment, supplies, etc., and a statement of net worth. More important than the aforementioned need is the problem of educating farmers in the keeping of better farm records.

The farm-inventory project was promoted wholly by circular letters, through the press, and by radio. The type of book used provides space for four inventories and gives directions for computing net worth. No attempt is made to summarize the data, and because of this fact the books are sold to the cooperators for 10 cents each or enough to cover mailing costs. Since this project was started on January 1, 1935, it has always been difficult to check accurately the number of cooperators. Cards sent in to the county agents in 1938 indicated that at least 335 were using the books. It is planned to discontinue this project on an organized basis. Requests for books will be filled, but no attempt will be made to promote the project.

Massachusetts. - The fourth annual inventory campaign in which all counties participated was conducted in Massachusetts in 1938. The campaign was successful, the encouraging thing being that about 35 bankers cooperated. Other agencies cooperating were 9 vocational teachers, 26 grain dealers, and 10 grange lecturers. The campaign was conducted largely through the use of circular letters, news articles, and the radio. No special inventory meetings were held, but the use and value of a farm inventory were discussed at some meetings called for other purposes.

New York. - The 1938 farm inventory campaign was conducted in New York on much the same basis as in previous years. The usual number of radio talks and radio briefs were prepared and broadcast. Included were a series of radio talks at the Cornell station with radio briefs used by 17 stations, scattered throughout the State.

Three stories on inventory were sent to the county agent leader for the December issue of Farm Bureau News. One story was prepared for the January issue. The Dairymen's League News published a story and an editorial, and the American Agriculturist called attention to inventory. The college extension editor distributed several stories to country weeklies and daily papers serving rural areas.

Statements calling attention to farm inventory, its particular value and use, appeared in small blocks on several of the regular service letters distributed through the Extension Service. Several of the production-credit associations called attention to the inventory campaign and the desirability of taking a farm inventory in their publication, News and Views.

The December issue of Farm Fax for Bankers contained a discussion of farm inventories and credit statements. Accompanying this issue were suggested advertisements that bankers could use in their local newspapers.

County agents received a letter on the subject, together with a suggested letter, announcing Farm Inventory Week, which they could send to their farmers. Teachers of vocational agriculture received a letter calling attention to material prepared at the college concerning inventories and credit statements. More than one hundred of these agricultural teachers requested this material.

During the past year an important change has been made in the farm inventory book which has been published as an extension publication during the past 20 years. The book now provides for recording inventories over a period of 5 years instead of for just the beginning and end of one business year.

Delaware. - During 1938, 275 inventory and credit statements were distributed in Delaware. The local Banks in Sussex County assisted in distributing these statements.

West Virginia. - In West Virginia, farm inventory and credit statement meetings were held in five counties during the winter. Books were supplied to the farmers attending the meetings, and they were shown

how to fill out the forms using average figures supplied by the group. News stories were released to the weekly and daily papers setting forth the value of this work and urging farmers to take an inventory and make out a credit statement. A feature story was prepared for the Farm News.

Farm Business Analysis

Special meetings are now being held in many of the States to assist groups in planning ahead for the next year. This work is in addition to the work in connection with account and survey projects. At these meetings, an analysis is made of the farm business, and in some cases budgets are prepared for the coming year. Some service of this kind is done with individuals on the farm. There are also a number of organized farm-management study groups and clubs springing up in several of the States. Work of this nature with 4-H Clubs is reported separately.

New Hampshire. - The Dairy-Crops-Farm Management project in New Hampshire is an excellent example of a coordinated approach by specialists with farmers which greatly assists the individual reached and at the same time develops a basis for work with other farmers. In this project the farms are mapped by the economist, and soil samples taken; the analysis is interpreted by the agronomist, and the dairy herd-improvement association records are discussed with the dairy specialist. A plan of organization, cropping system, and feeding program is drawn up and taken back to the farmer for his criticism and suggestions. The farm plan is then reworked and returned with practices recommended for the period of rotation, the map being used as the basis for description. Accounts have been kept on these farms, and, combined with the dairy herd-improvement association records, are used to analyze the business.

Massachusetts. - Meetings were held in Essex and Franklin Counties, Mass., to determine and analyze the cost of producing certain vegetables. This was done by listing the various operations and input items on a blackboard. Estimates were then obtained from members of the group as to the amount of time required for each operation and the amounts of seed, fertilizer, and lime required. By applying current rates the costs to produce were determined and compared with the value of the crop. These meetings apparently were interesting, the group participated freely, and various cultural practices were discussed in considerable detail.

Connecticut. - The work with farm management, or young farmers' clubs, in Connecticut decreased in 1938, because the State has been fairly well covered and more than 1,300 young men have completed work in these clubs; also because of increased pressure of other work upon the time of the farm-management specialists. There was considerable demand by both farmers and county agents to organize new groups.

There were only four active farm-management clubs in 1938, whereas a few years ago, 13 or 14 were meeting regularly. The object of these clubs is to give a well-rounded farm-management course, first, in regard to the factors that determine profit on farms and, second, in regard to

general economic and social factors that farmers must consider in the development of a sound agricultural policy.

New Jersey. - Farm-management surveys and farm records greatly assist in the making of farm budgets on individual farms. In New Jersey, with groups of farmers such as poultrymen, the farm-management specialist meets and discusses budgets based on the outlook and on records obtained through accounts and poultry-flock records.

West Virginia. - Nine farm-business planning meetings were held in six counties in West Virginia. Two plans were followed. The plan used in five counties was to announce in the papers and by circular letters a general county or community half-day meeting on the subject. The value of having a farm business plan and method of making it were discussed, and illustrations were given on how to fill out the planning forms. These meetings were well attended, but the time was too short and the capacities of those attending were too varied to do a really good job.

The plan followed in the sixth county was much more satisfactory and will be used henceforth. Under this plan the agent issued a special invitation to 25 selected leading farmers to come in for an all-day meeting on the subject. Eighteen came to the meeting. The planning form was discussed, and one partially worked out for each of the farmers who stayed throughout the meeting. These farmers were encouraged to complete the plan and keep records of the year's business. The agent is taking care of the follow-up on this work and reports that he is encouraged with the results to date. A new farm-business plan form was prepared in May which embodies many of the features found in the forms used in various States.

4-H Clubs

Vermont. - Three phases of farm-management work were started with 4-H Club members this past year. In six counties, 4-H farm-account clubs have been formed with a total enrollment of about 50 members. In these clubs, the 4-H members are keeping a farm account book in connection with the National 4-H Accounting Contest. The extension economist met with these clubs three times during the past year; in December and January, to help them organize; in May, to go over their work with them and answer any questions they had at that time; and again in August or September, for the same purpose. At a meeting of the club in December or January of the next year, the record books will be audited and suggestions made to the 4-H Club members to help them in analyzing their records. Since it was not possible for the extension economist to meet with the farm account clubs each month, mimeographed brieflets were prepared to assist the club leader in leading a discussion on important economic problems.

The second type of work done with 4-H Club members was with an advanced dairy club at Hinesburg. This club met six times with the extension economist to discuss six important efficiency factors in dairy farming - the general price level and effects on income; size of business and its effect on income; labor efficiency; capital efficiency; diversity; rates

of production and their effects on income. Mimeographed brieflets to be used at the meeting were prepared on each of these topics.

The third type of work carried on with 4-H Club groups was farm-management tours, which were conducted in Orange, Windsor, Orleans, Rutland, and Bennington Counties. The purpose of the tours was to point out the things to look for and to avoid in selecting a farm. These tours were well attended, and the members attending showed considerable interest. Each tour began about 10 o'clock in the morning and was over by 3 or 4 o'clock in the afternoon. In the morning, several exceptionally good farms were visited to point out the things to look for when selecting a farm, such things as level topography, good soil, and large size of business were emphasized. A basket lunch was eaten at noon, usually on an abandoned farm, and the afternoon was spent visiting farms in an abandoned area to point out the things to look out for in selecting a farm.

Rhode Island. - In the eastern Rhode Island farm bureau, a group of 4-H Club members, whose main project is the completion of a financial record on the whole farm business, has been quite successful. Attention is being given to farm-management problems in addition to farm records. The State leader and the county club agent have cooperated enthusiastically in this work. All members are 16 years old or over. Each one is keenly interested in farming, and some are planning to take over the operation of a farm as soon as possible.

Less progress has been made in the rest of the State. Individual 4-H members have been helped to begin a record. The value and use of farm records and the method of keeping an account have been discussed at club meetings. Conferences with club agents regarding the future of this work have been held.

New York. - The work with older boys in New York is designed to deal with the problems confronting those just started in farming or about to begin farming. It is suggested that organization of a formal club may not be advisable in every instance but discussion groups might be held for young people who may be interested. The following topics are suggested for meetings with new groups:

- Future types of farming in New York (illustrated).
- How to select and buy a farm.
- How to organize a farm business to make money.
- Farm-management tour.

Other suggested topics that may be substituted for any in the above list or added to the above topics are: How to map the home farm; how to keep a farm account and analyze the farm business; how to take a farm inventory and make a credit statement; how to get and use credit; how to record legal papers; how to do business with a bank; how to handle farm legal affairs; insurance problems of farmers; and farm management or marketing farm study course as a project. For advanced groups that have had some farm management, special programs can be arranged giving consideration to previous training.

During the past year, 18 meetings with young farmers were conducted with specialist's help in eight counties. The most popular subjects for discussion were "Getting started in farming" and "How to organize the farm business to make money." In addition, two meetings were attended in Yates County to assist the farm-accounting club in checking progress on farm accounts and in closing books and making the analysis. A meeting was held in Livingston County with 16 young men and their parents to start a farm-accounting project. At a meeting in Albany County, prices, livestock cycles, and farm-equipment costs were discussed. In Greene County one meeting was held to start a farm-account project and discuss the taking of an inventory and making of a credit statement. During the summer the boys keeping farm accounts were visited for the purpose of checking their progress and giving them needed assistance.

Several county club agents took groups of older boys to their local banks, where they received instruction from bankers on how to do business with a bank. Also in several counties, groups of older boys received instruction on how to handle farm legal affairs from local lawyers, and on how to record legal papers from local county clerks.

At the club congress held in June, a 1-day program of farm management was arranged, which consisted of land utilization and farm management discussions in the forenoon and a land utilization and farm management tour in the afternoon. About 30 boys attended.

A special 1-day training school was held for the purpose of training county club agents in the basic principles of farm management and marketing, and of familiarizing them with the teaching procedure to be followed. These schools were held in five regional areas of the State. The theme of the morning sessions was "What's ahead for future farmers", in which the general economic outlook and the outlook for cost of labor, machinery, horse power, etc., were discussed. The afternoon discussion dealt with "Getting started in farming." Special topics treated were, future types of farming in New York, insurance and credit, and factors affecting future farm incomes.

Preparations were also made in New York for three regional 2-day economic-training schools for club agents the first 2 weeks in December. A handbook of economic facts for county club agents was prepared. The topics receiving special attention were land use; long-time outlook for different enterprises and relative profitableness of various enterprises; farm accounting, farm management, and discussions of farm-management and marketing programs adapted to reach the older rural youth. Training club agents to do a better job of guiding and assisting young men with their farm-management problems is time well spent, because it is impossible for a few economists to contact the thousands of young men who become actively interested in farming each year.

Pennsylvania. - At the beginning of the year in Pennsylvania, a group of 33 boys and girls in Indiana County formed a 4-H farm account club. To date, 27 of these have come through with their records. Most of them have done a good job of keeping the record. These books will all be summarized and analyzed as soon as the year is over and an attempt

made to get better management in use on their farms through the details suggested by the analysis.

Maryland. - Thirty-two 4-H Club members started keeping farm-account records in 1938 in Maryland, and 18 of them completed their books. The interest was exceedingly strong because of the National 4-H accounting contest. The keeping of the books is accompanied by study and analysis of the records and suggestions as to changes that would help to increase the profits and success of the farm.

West Virginia. - Four complete farm-record books were submitted from West Virginia in the 1938 National 4-H Farm Account Contest. Fifty-two 4-H Club boys and girls entered the 1939 contest from 13 different counties. It appears now that several will not complete the project, but others are doing very good work. The responsibility for this project rests largely with the county agent or club agent. The extension economist supplies the books and directions and has written several "reminder" letters. It has not been feasible for the extension economist to contact any of the entrants, although they have been reached by the county workers.

General Farm-Management Meetings and Services

Maine. - The two farm-management specialists in Maine individually or together, have attended 50 different meetings during the year aside from private conferences too numerous to mention. Meetings are one of the simplest and most satisfactory methods of familiarizing farmers with approved practices and the general economic situation. Material carefully organized and presented in a clear and interesting manner appeals to farmer groups, although there is keen competition for their time from various other sources. The farm-management specialist also found an opportunity throughout the year to discuss with several interested groups a sliding scale or index payment basis for retiring mortgage credit. The method is believed to have real merit, especially in Aroostook County. However, little progress has been made thus far because of insufficient time to develop the idea to a point where it can be given general publicity.

Vermont. - Numerous talks were given by the extension economists in Vermont at the annual dairy herd-improvement meetings. Talks were also given before many other groups. Some of the talks that have a bearing on farm management are listed below, and the groups to which they were given.

Effect of Price Changes on Farm Incomes. - Dairy Herd-Improvement Association.

Poultry and Dairy Combination. - Windham County Annual Poultry Meeting.

Factors Affecting Dairy-Farm Profits. - Dairy Herd-Improvement Association.

Is the Price of Milk What's Wrong With Farming in Vermont? - Agents of the Farm Bureau Insurance Co.

Why Do We Produce Milk Instead of Some Other Farm Products? Danville Chamber of Commerce.

Factors Affecting Dairy-Farm Club Profits. - Randolph Center Young Farmers' Club.

Factors To Consider in Selecting a Farm. Young farmers who had been attending night school in Burlington.

Selecting a Farm. - Middlebury Young Farmers Club.

Side Lines. - Vergennes Rotary Club.

In March, two meetings were held in cooperation with the home-management specialist to discuss credit problems with farmers and their wives. The discussion centered around selecting and financing a farm and a farm business, considering long-term and short-term credit and the various sources of credit. These meetings were held to lay the ground work for more to come the following year.

Massachusetts. - Participation in conducting a few farm-management meetings, both alone and with other specialists, was a part of the program of the farm-management specialist in Massachusetts. The topic most commonly discussed at these meetings was, Factors Affecting Income From Dairy Farming. The basis for this was the dairy farm-management survey, which has been used rather extensively throughout the State for this and other purposes.

New York. - From a farm-management angle, the extension meetings on farm credit in New York have emphasized the good opportunity and desirability for many farmers to refinance their debt structure at current low interest rates; and the high cost of "store credit" and easy payment plans and the advantages for farmers in obtaining short-term credit from production credit associations and commercial banks.

Pennsylvania. - In Pennsylvania 139 lectures were given on farm management to groups in various parts of the State. The total attendance at these meetings was 6,300. Work on farm-lease contracts also continues to be important. During the year, assistance with lease problems was given on 200 farms. These problems varied from a single feature of a lease to revising the entire lease or writing a new contract where the farm has not been rented before.

Film Strips

One film strip has been purchased and another is in the process of being made for use in teaching farm management in Maine. At least one other film strip is contemplated for teaching the mechanics of account keeping. This may be purchased or made during the year.

Exhibits

Considerable time was spent during September in the preparation of a 4-H Club exhibit for the Eastern States Exposition. The motto for this exhibit was, "Vermont 4-H Club members learn what constitutes a good dairy farm." Four factors were emphasized - size of business, labor efficiency, capital efficiency, and rates of production. A model farm was set up on a table 6 feet wide and 18 feet long, and the four factors were illustrated on the farm.

Radio

Radio talks, were given by the extension economists in Vermont on numerous farm-management subjects as follows:

Where Are You Going?
Choosing a Farm.
This Fall's Milk Supply.
Is Your Farm Up to Par?
Are Champlain Valley Farms Large Enough?
Why Do We Produce Milk?

Tours

Tours have been a part of farm-management work in New York for many years. A new kind was started in 1938. To enable farmers to become better acquainted with the dairy replacement problem in the State, a tour of north-country dairy committeemen to Orange County was sponsored. Farmers from surplus areas spent 2 days visiting farms in a county where many of the dairy replacements are purchased. Some time was also spent in discussing the problem with a local cattle dealer.

Farm-Study Courses

Farm-study courses have been developed in New York to reach people who might not be reached through other channels of extension teaching. The lessons go to persons who have guaranteed an interest in the subject. With such interest expressed, it is reasonable to expect good results. Two of the courses are on farm management. Elementary Farm Management is for farmers interested in the elementary principles. It differs from the other course in that it deals with one particular farm and is to help a farmer analyze his own business. Advanced Farm Management, as the name indicates, is a course prepared for those who have finished one of the introductory courses and wish to go into a more detailed analysis of the individual farm. The course on Introduction to Agriculture, especially designed for city people interested in learning about farming, contains a number of lessons on factors to consider in choosing a farm and getting started in farming.

Miscellaneous

It is not possible to report on the large amount of work involved in service letters, news releases, special analysis of individual farmer's problems, and personal correspondence regarding inquiries of a farm-management nature. These activities, however, though not as obvious as some of the regularly organized projects, serve an important place in a well-rounded farm-management program.

SUMMARY

Farm-management extension continues to be that phase of the extension program which deals with the organization and operation of the farm business as a unit. Not only has interest in this farm unit approach to the solution of problems increased rapidly during the past few years among farm people themselves but among administrators of the various public programs for agricultural improvement as well. One of the principal reasons for the increased emphasis on land use planning is to give a better background of the many influences outside the farm that need to be given more attention in the future in directing, adjusting, and developing individual systems of farming. To meet the greater challenges in the field of farm management, in the best way, our extension educational programs must continue to adjust with changing conditions. Some of the questions that might be considered in the Northeast in appraising our present activities are:

1. What changes are taking place in the type of information needed for a farm management extension program?
2. What more information about farm management principles, factors, and standards is needed?
3. Should more of this information be obtained in terms of land classification? In terms of what can be done about specific situations and problems?
4. What information is needed on prices, buying, selling, and financing, and just how do these things affect farm incomes?
5. What is the place and function of farm accounts and farm management surveys? When should enterprise accounts and surveys be used?
6. How can the gathering of information on farm management by extension economists be organized to make it more educational as well as fact assembling?
7. What is the relationship of farm management to land use planning?
8. What needed adjustments in farm organization are there that can't be made by individuals.
9. Can the best use of land on farms in areas that will remain in agriculture be approached in any way except through farm organization and management?
10. What are the conditions retarding needed adjustments in farm organization?

11. What is the trend in ownership of farms? In equity?
12. In the intensive crop areas, is the control of operations swinging from the farm operator to the financing agencies? If so, is this a trend or a temporary condition?
13. Is it possible for individuals to pay for a farm and maintain the productive plant at the same time?
14. What is the long-time trend in costs of production as related to prices received? For various costs? For various types of farming?
15. What are the adjustments that will need to be made because of these trends?
16. What should the farm management program be for the part-time farms?
17. What is the place of a "live at home program" in a farm organization? How does it differ for different types of farming and different areas?
18. What methods are most effective in assisting farmers with their farm management problems?
19. How can the farm management specialist be of greater assistance to the county agent?
20. What is involved in developing a farm plan besides a knowledge of farm business principles? - The potentialities of the farm? The capabilities of the family? Their probable living expenses? Their financial situation? What else?

